

---

# ‘ATTACK OF THE CLONES’: PROBLEMATISING EQUINE SPORTS INTEGRITY REGULATION ON THE ASCENDANCY OF THE GENETICALLY COPIED ATHLETE

---

Jonathan Merritt\*

*Senior Lecturer in Sports Law at De Montfort University and Law School  
Deputy Head of Research*

## Introduction

This article considers both challenges and also unprecedented development opportunities for the development of *human* athlete regulation development. This discourse has arisen because of the current participation of cloned *equines* in elite sport. That area has received almost no recognition in any academic debate, that is, specifically how cloned equines need to be taken into account in the context of equine sports ethics and regulatory issues. There are also the related and highly unusual, intellectual property issues to be considered. This is not an animal welfare treatise *per se*, but concentrates on the potential injustice to humans of a failure to regulate cloning adequately.

There are four main themes in this article. Firstly, although there is no credible evidence of the cloning of human athletes, genetic copies of non-human athletes have been made. These are competing in major equine sports now, yet there seems little evidence of a proper debate on the impact on these sports that this paradigm shift is likely to have. Secondly, and leaving the ethics of cloning entirely aside, if cloning is not addressed then these consequences could be profound. Interest in viewing sports where the cloned ‘super-athlete’ is always most likely to win may decline. This is bad for sponsorship, of concern in terms of the financial position of sports and thus detrimental to the wider economy. This is so because of the close relationship gambling has with equine sports. The worldwide betting industry would be affected by a loss of interest in horse or harness racing which affects the sector’s ability to survive. This article will also show that many horse sports, including racing are more closely linked in regulatory terms, below the surface, than their respective sports governing bodies would like to admit. The article posits that this *interface problem* is likely to

---

\* This article arose out of research for a PhD thesis entitled “‘Horses for courses’: an analysis of equine sports regulation and disciplinary procedures regarding the non-human athlete”. It is planned to publish this as a monograph with Rowman and Littlefield, USA. This paper was originally presented at the inaugural ‘Horses, Society and the Law’ Conference, 11 April 2017 at DMU.

be a considerable barrier in reaching a co-ordinated response to cloning that encompasses all sports that utilise non-human equine athletes. The third area this article explores is the likelihood or otherwise that cloned animals could be granted intellectual property protection in the near future. If they are, there could be the possibility for the owners of cloned specimens to 'own' the bloodline in a way not found in traditional breeding practices, with more detrimental repercussions for equine sport. Finally, this research suggests that a complete rethink of what constitutes 'fair play' and what is 'cheating' needs to happen now. This is because the resulting sports regulations could form an important prototype ready for the eventual arrival of human cloned specimens. The background to the current regulation of horses in sport, in brief, follows.

Horses have been a feature of developing civilisation since pre-historic times, first as a prey animal<sup>1</sup> and then as a beast of burden and weapon of war. The oldest piece of European literature, Homer's *Iliad*, features Achilles talking to his chariot horses<sup>2</sup> and the Chinese were using chariots for warfare around 2300 BC with the cavalry horse emerging about 1000 years later.<sup>3</sup> The use of the horse in sport grew out of this development with sports testing the skills learnt for combat; for example, chariot racing in ancient Rome, modern eventing, utilising skills that a cavalry horse and rider would need and the modern pentathlon which requires abilities that would have originally been essential for a 19<sup>th</sup>-century soldier.<sup>4</sup> In addition, polo, now popularised in South America, was originally developed during the British Raj by cavalry officers as early as 1859.<sup>5</sup> Since World War I decimated the UK horse population and hurried along mechanisation that was already well underway,<sup>6</sup> the main use of the horse by man has been in sport and leisure. In fact, the first sport of any kind to have doping controls was UK horse racing. This was to combat the alleged use of cocaine by US trainers at the turn of the 20<sup>th</sup> century.<sup>7</sup> The use of complex and often draconian regulations in horse racing and in equestrianism<sup>8</sup> is now well established. Strict liability and reverse burdens of proof are key to these regimes and the suitability or otherwise of those concepts for horse sport is outside the scope of this article.<sup>9</sup> However, in common with human-only sport, regardless of motive, the ingestion of a banned substance by a horse, producing

- 1 Bahn, G (2012) *Cave art: a guide to the decorated ice age caves of Europe*. London: Frances Lincoln, 93–99.
- 2 Book XIX of Homer's *Iliad*, the written version is usually dated to around the 8<sup>th</sup> century BC.
- 3 Barclay, HB (1980) *The role of the horse in man's culture*. London: J. A. Allen and Co Ltd, 31–33.
- 4 The Modern Pentathlon, introduced by Pierre De Coubertin in 1912, essentially as a test of the skills a 19<sup>th</sup>-century cavalry soldier would need, is often criticised for its out datedness, particularly the equestrian and fencing elements. It most recently survived a vote for or against inclusion in the 2020 Games (see [www.olympic.org/news/ioc-executive-board-recommends-25-core-sports-for-2020-games/190772](http://www.olympic.org/news/ioc-executive-board-recommends-25-core-sports-for-2020-games/190772) (accessed 5 February 2015)).
- 5 Steinkraus, WC and Stoneridge, MA (1987) *The horse in sport*. London: Macdonald Orbis Ltd, at 154.
- 6 See generally Butler, S (2011) *The war horses*. Wellington: Halsgrove.
- 7 Carter, N. (2012) 'Testing times' in: Carter, N., *Medicine sport and the body: a historical perspective*. London: Bloomsbury Academic, at 105.
- 8 These two groupings of sport are quite different on a fundamental level and the use of the term 'equestrianism' to describe both is misleading.
- 9 See Merritt J (2017) 'Don't look a gift horse in the mouth' – regulating for integrity, what equestrianism can learn from thoroughbred racing' *International Sports Law Journal*, 16(3), 198–216.

an 'adverse analytical finding' on testing will result in dire consequences for the rider and/or trainer and owner. This is whether the contaminant is a performance-enhancing manufactured chemical,<sup>10</sup> or a naturally occurring substance<sup>11</sup> or a vegetable derivative.<sup>12</sup>

With the foregoing landscape in mind, this article seeks to examine a paradox that has developed. It appears that cloning equines for sport has been accepted by sports governing bodies (SGBs) with very little, if any, resistance, debate or consideration of the regulatory questions raised. This is not to say that this article will revisit the ethics of cloning *per se*; rather the need to have a debate on the basic ethical question of what it is we mean by 'cheating'. As things stand, competing a horse that has ingested a poppy seed can lead to serious reputational and financial loss, whereas competing a horse that has been genetically engineered 'from hoof to ear tip' raises not one eyebrow. In presenting the conclusions from this research it will be necessary to justify consideration of the horse as a non-human 'athlete'. This is carried out by a thorough examination of the language used in regulating horse sport, from where that is derived<=its derivation?> and whether these are 'terms of art' or the result of a real change in the social construction of the elite competition horse.

A key underlying problem in equine sport in the context of genetically enhanced horse athletes is that the governance of the various sports is so fractured and, therefore, the possibility of a unified response to cloned horses is unlikely. The issue is the *interface problem*, a term coined first in this article and which shows that consistency and reciprocal arrangements across the different sports are more apparent than real. The need for academic commentary in all these areas is therefore pressing, as the era of the cloned animal athlete has begun. The arrival of the cloned athlete has hitherto been seen as a future 'spectre' beset with potential sporting ethical dilemmas.<sup>13</sup> This is because the discourse has overwhelmingly been concerned with the human athlete. The fact is, though, that cloned equine athletes are already among us and the need for a much more thorough debate is almost as important as if these athletes were human. This article argues that when there are human clones in sport, thinking about sports integrity will be thrown into a Kuhnian state of crisis, which is likely to bring about a paradigm shift<sup>14</sup> of epic proportions. There is now, however, the opportunity to learn from the regulatory mistakes of the past and shape the future regulation of human clones by regulating their equine counterparts effectively at the moment. The currently accepted wisdom is that integrity

- 10 'Bute' in CAS 2012/A/2807 *Khaled Abdullaziz Al Eid v Fédération Equestre Internationale/CAS 2012/A/2808 Abdullah Waleed Sharbatly v Fédération Equestre Internationale*.
- 11 A poppy seed in feed can produce a positive result for morphine; see also Rayner, G. (2014) 'Queen's Gold Cup-winning racehorse Estimate tests positive for banned drug morphine' *Telegraph online* available at: <http://www.telegraph.co.uk/news/uknews/queen-elizabeth-II/10984322/Queens-Gold-Cup-winning-racehorse-Estimate-tests-positive-for-banned-drug-morphine.html> (accessed 25 July 2017).
- 12 A chilli pepper derivative found in *Equiblock* horse liniment at the 2008 Games; Wendt, J (2011) 'The FEI and the continued fight against doping in equestrian sport' *International Sports Law Journal*, 3–4, at 71.
- 13 Gardiner, S, O'Leary, J, Welch, R, Bayes, S and Naidoo, U (2011) *Sports law* (4<sup>th</sup> edn). London: Cavendish at 68.
- 14 See Kuhn, T, 'The structure of scientific revolutions' *International Encyclopedia of Unified Science*, Vol. 2, No 2. Chicago: University of Chicago Press 1970.

regulations, *inter alia*, anti-doping rules developed for one species, man,<sup>15</sup> can be applied to another, horses,<sup>16</sup> with little substantive amendment and be effective. This article argues that the better results are achieved by careful species-specific drafting. The particular urgent driver for the rethink proposed is not just that a few ‘concept’ animals are already competing<sup>17</sup> but that in the near future the floodgates may well open. There is a Chinese and South Korean joint venture alleged to be planning to build a large ‘factory’ to produce cloned work animals *en masse*, including racehorses.<sup>18</sup> This may be commercial hyperbole for now, as there is no direct evidence of ground having been broken on this construction project, but the will and the technology clearly exist.

### Is the horse a non-human ‘athlete’?

The first question to be addressed in this article is whether the horse can justifiably be referred to as an ‘athlete’, before considering the implications of cloning. The way that a horse is perceived by its human contemporaries has changed throughout history and is an evolving social construction.<sup>19</sup> Social science literature and even the *Fédération Equestre Internationale* (FEI)<sup>20</sup> refer to elite horses competing in sport as ‘athletes’. If, however, the central argument in this article is to proceed, it is necessary to consider whether the new term is just a matter of linguistics or a ‘knowable truth’ with real and practical consequences, especially when considering cloning. In sociology, Gilbert<sup>21</sup> explores the social processes that have led to the re-classification of horses as athletes in equestrian sport. This analysis concentrates on a particular breed, the Canadian Sport Pony, utilising theoretical resources developed by Latimer and Birke.<sup>22</sup> For Gilbert, the meanings generated around the identity of a certain type of horse are the culmination of specific breeding practices, and the changing place of the horse in society feeds into this identity transformation. Put another way, the changing uses are shaped by evolving social structures. For Latimer and Birke, the figure

- 15 See Amos, A (2007) ‘Inadvertent doping and the WADA Code’, 9 Bond L. Rev. 1, at 18 for an interesting commentary on the WADA Code. This code is very much the basis for FEI equine anti-doping regulation.
- 16 EADCMRs, available at: <http://inside.fei.org/fei/cleansport/> (accessed 21 April 2017) and BHA Orders and Rules of Racing, available at <http://rules.britishhorseracing.com/Orders-and-rules&staticID=126195&depth=3> (accessed 25 July 2017).
- 17 See Cuckson, P (2012) ‘Clone of “best ever horse” Gem Twist is bought by Olympic show jumping owner’ *Telegraph Online* available at [www.telegraph.co.uk/sport/olympics/equestrianism/9383567/Clone-of-best-ever-horse-Gem-Twist-is-bought-by-Olympic-show-jumping-owner.html](http://www.telegraph.co.uk/sport/olympics/equestrianism/9383567/Clone-of-best-ever-horse-Gem-Twist-is-bought-by-Olympic-show-jumping-owner.html) (accessed 25 July 2017) and Davies, G (2016) ‘Cloning in polo has arrived and set to be talk of the town in Argentine season’ *Telegraph Online*, available at <http://www.telegraph.co.uk/polo/2016/10/21/cloning-in-polo-has-arrived-and-set-to-be-talk-of-the-town-in-ar/> (accessed 18 July 2017).
- 18 Connor, N (2015) ‘China “cloning factory” to produce cattle, racehorses and pets’ *Telegraph online*, available at <http://www.telegraph.co.uk/news/worldnews/asia/china/12013158/China-cloning-factory-to-produce-cattle-racehorses-and-pets.html> (accessed 16 June 2016).
- 19 Merritt J (n 9 above) at 201–202.
- 20 The governing body for the Olympic equestrian sports such as show jumping and dressage, as well as many other international horse sports like carriage driving and endurance but not flat or jumps racing.
- 21 Gilbert, M and Gillett, J (2012) ‘Equine athletes and interspecies sport’ *International Review for the Sociology of Sport* 47(5) at 634–635.
- 22 Latimer J and Birke L (2009) ‘Natural relations: horses, knowledge, technology’ *Sociological Review* 57(1), 1–27.

of the horse is ‘... complex and polysemic: a hybrid but highly socially differentiated cultural artifact’. The particular breed has ‘... inherent qualities, but qualities that have been developed partly through methods of breeding and partly through how horses have been used or nurtured. The horse is performed as an effect – of the partial connection between nature, culture and technology’.<sup>23</sup> The FEI use the term ‘athlete’ without hesitation in both their tribunal awards and in expressing the ethos underpinning their disciplinary regulations. For instance, in *Al Eid and Sharbatly v FEI* the award notes that ‘[a] central and distinctive feature of equestrian sport is that it involves a partnership between two types of athlete, one human and one equine ...’.<sup>24</sup> This case involved an adverse analytical finding, agreed by both sides as probably from an inadvertent contamination of a feeding bowl. This had transgressed a relevant provision of the FEI Equine Anti-Doping and Controlled Medication Rules (EADCMR) then in force. Most relevant for this discussion, the FEI notes the following as one of its core values:

Equestrianism is the only sport that involves two athletes, equine and human. It is the successful partnership between these two elements; the relationship of confidence and respect that is built up between them, that makes the sport so exceptional.<sup>25</sup>

It is unsurprising that an organisation dedicated to horses in sport should want to elevate the competition horse to the status of ‘athlete’ at every opportunity but there is more to it than that. The horse can be realistically reimagined this way if one considers the huge changes in how horses have been ‘used or nurtured’<sup>26</sup> over the last millennium and beyond.

There is very little research, if any, on sports integrity involving anything other than human athletes;<sup>27</sup> equine sport, despite its significant contribution to ‘UK plc’, receives insignificant academic attention. The perception of the horse which underpins this framework is rooted in outdated thinking and a general consideration of the species as a relic of mankind’s past, of residual, historic and nostalgic nature only.<sup>28</sup> Moreover, this leads to the horse being treated, in regulatory terms, like a piece of equipment.

- 23 *Ibid.* at 8.
- 24 CAS 2012/A/2807 *Khaled Abdullaziz Al Eid v Fédération Equestre Internationale/CAS 2012/A/2808; Abdullah Waleed Sharbatly v Fédération Equestre Internationale* at para 6.24 (see also Appendix 1??: is this an appendix to the judgment?).
- 25 ‘FEI values’ available at <http://inside.fei.org/fei/about-fei/values> (accessed 10 July 2017).
- 26 Gilbert, M and Gillett, J (2012) ‘Equine athletes and interspecies sport’ *International Review for the Sociology of Sport* 47(5) at 634–635.
- 27 Anderson, J ‘Doping sport and the law: time for a repeal of prohibition?’ (2013) *International Journal of Law in Context*, 9(2) 135–159; Beloff, M ‘Drugs, laws and versapaks’ in *Drugs and doping in sport*, (London: Cavendish 2001); Goldman, B and Klatz, R *Death in the locker room 2* (Chicago: Elite Sports Medicine 1992) at 23; Lowther, J ‘Criminal Law Regulation of Performance Enhancing Drugs’ in *Drugs and Doping in Sport* (London: Cavendish 2001); Rigozzi, A, Kaufmann-Kholer, G and Malinverni, G ‘Doping and fundamental rights of athletes: comments in the wake of the adoption of the World Anti-Doping Code’ (2003) 3 ISLR 39, 43; Savulescu, J, Foddy, B and Clayton, M ‘Why we should allow performance enhancing drugs in sport’ (2004) *Br J Sports Med*, 38: 666; Weatherill, S ‘Anti-doping revisited – the demise of the rule of “purely sporting interest”?’ (2006) 27 *European Competition Law Review* 645–657; Welch, R ‘A snort and a puff: recreational drugs and discipline in professional sport’ in *Drugs and Doping in Sport* (London: Cavendish 2001).
- 28 Merritt J (n 9 above) at 201.



This in turn means that when it is outside the parameters of what is permitted by regulation, such as when there is an adverse analytical finding, the human operator, trainer or owner is entirely accountable, *de facto* morally so. Equine sports governance proceeds from the basis that regulation, discipline and sporting integrity protection should in essence be no different from that applied to human only sports. The author is a competitive rider and that paradigm is at odds with the lived experience of being involved in horse sport. The horse is no extension of the human participant, the horse is not an inanimate object like an archer's bow, a sailing yacht or a hockey stick. These pieces of equipment are used to enhance human physical ability and require considerable skill to succeed with, up to and including Olympic level. They are used, respectively, to increase propulsion and accuracy, provide ability to float and travel across water at speed and strike a ball with greater force than a human alone can. Other than on a superficial level this is not an adequate analysis of a competition horse. The mount has its own wants and needs and successful riding requires the rider to carry out a rapid complex 'cross-modal'<sup>29</sup> (using more than one sense at a time) negotiation process with the horse, to avoid serious injury or death.<sup>30</sup> In other words, the first runner in a relay race is no more the pilot of the next runner in the team than a rider is a mere pilot of a competition horse.

Lack of public faith in the current methods of maintaining the integrity of sport are currently in the spotlight generally.<sup>31</sup> The situation is no different in equine sport, which has seen its fair share of 'scandals'.<sup>32</sup> A detailed consideration of why such as the EADCMRs and the 'Orders and Rules of Racing'<sup>33</sup> are poorly designed and cannot be relied upon to protect equine sporting integrity more generally is the subject of another article.<sup>34</sup> Suffice it to say here, though, there currently exists an obsession with strict liability and an inability to distinguish between moral fault and accidental, even

29 See Proops, L and McComb K (2012) 'Cross-modal individual recognition in domestic horses (*Equus caballus*) extends to familiar humans' *Proceedings of the Royal Society B*, vol. 279(1741), at 3131.

30 Cripps, R and O'Brien, D (2004) 'Monitoring falls during eventing: establishment of a national surveillance system to monitor injury to riders and horses from falls during the cross-country phase of eventing in Australia: a report for the Rural Industries Research and Development Corporation': RIRDC. This study identified almost 60 rider deaths in this Olympic sport 1993–2000.

31 See The Brewery–Freuds 2017 report, 'Sport' 5 July; also Kelner, M (2017) 'General public is losing faith in scandal-ridden sports, survey claims' *Guardian Online*, available at: <https://www.theguardian.com/sport/2017/jul/05/public-faith-sport-low-corruption-doping-sandals-survey> (accessed 12 July 2017).

32 Most recently, 'British Equestrian: chief executive Clare Salmon quits over 'serious concerns'', *BBC Sport Online*, available at: <http://www.bbc.co.uk/sport/equestrian/40668002> (accessed 25 July 2017), but see also Wood, G (2013) 'Dubai case raises new questions for Sheikh Mohammed' *Guardian online*, 30 September (<http://www.theguardian.com/sport/2013/sep/30/sheikh-mohammed-dubai> (accessed 25 July 2017)); *FEI v Alice Beet* (11 September 2006); *FEI v Sue Sidebottom* (28 July 2008); Watkins, F (2013) 'Crisis in British endurance' *Horse and Hound*, 26 September, Time Inc. (UK) Ltd, at 6–7; Watkins, F (2013) 'Eventing world shocked as Burghley winner fails drugs test' *Horse and Hound*, \*19 November, Time Inc. (UK) Ltd; Rayner, G (2014) 'Queen's Gold Cup-winning racehorse Estimate tests positive for banned drug morphine', *Telegraph Online* available at: <http://www.telegraph.co.uk/news/uknews/queen-elizabeth-II/10984322/Queens-Gold-Cup-winning-racehorse-Estimate-tests-positive-for-banned-drug-morphine.html> (accessed 25 July 2017).

33 EADCMRs, available at: <http://inside.fei.org/fei/cleansport/> accessed 21 April 2017) and *BHA Orders and rules of racing*, available at <http://rules.britishhorseracing.com/Orders-and-rules&staticID=126195&depth=3> (accessed 25 July 2017).

34 See Merritt J (n 9 above) at 198–216.

inevitable contamination. Consequently, these regulations cannot work effectively to counter current threats such as doping and fixing. This is true within the individual sports but even worse, it is impossible for these regulations to inter-relate across different horse sports properly<sup>35</sup> when needed. There is little chance, if any, that they can adequately deal with the issue of cloned non-human athletes, therefore. If such as the FEI really treated the horse as a non-human athlete, then the regulations would acknowledge that at times it is not possible to presume fault by the human operator or owner.<sup>36</sup> In addition, regulations would harmonise across different horse sports to take account of the commonalities there are in sports involving non-human athletes rather than what are in the end, artificial differences.

What evidence is there that the horse retains a pivotal cultural, social, economic and sporting role and therefore must be reimagined? It would be useful to look at the development of the special relationship with humankind, entwined as it is with the development of civilisation. Horses began to have a special relationship with human beings, other than as hunter and prey,<sup>37</sup> around 3000 BC where the horse began to be used for transport in Russia and Western Asia.<sup>38</sup> Domestication led to a high level of species interdependency, almost symbiosis. The horse became increasingly dependent on nutrition and care provided by man. This is to avoid poor health as equines require large quantities of poor quality forage not lush sugary pasture<sup>39</sup> and careful husbandry is required.<sup>40</sup> In return, the horse has been an essential element in the development of warfare, agriculture, industry, culture and commerce. In terms of empire building and conquest, for O'Daniel-Cantrell, waging war in the time of the Kingdoms of Judah and Israel was heavily dependent on horses. Winning any skirmish largely depended on destroying the mobility of the enemy by 'capturing their horses and destroying their chariots'.<sup>41</sup> Further, a relatively small number of horses and chariots could tip the balance on the battlefield because of the fear factor as well as the increased manoeuvrability.<sup>42</sup> It is unsurprising, therefore, that both Old and New Testament imagery designed to evoke notions of a righteous army vanquishing the forces of evil tended to employ

35 See the 'interface problem' below.

36 Merritt J (n 9 above) at 214–215.

37 Some sub-species such as the North American native *Equus Ferox Caballus* population and the Quagga (*Equus Quagga Quagga*), Eurasian Wild Horse (*Equus Ferox Ferox*) and Przewalski's Horse (*Equus Ferox Przewalskii*) were in fact hunted to extinction in the wild. See, for instance, Yohe II, RM and Bamforth, DB (2013) 'Late Pleistocene protein residues from the Mahaffy cache, Colorado' *Journal of Archaeological Science* 40(5), 2337–2343.

38 Clutton-Brock, J (1992) *Horse power: a history of the horse and the donkey in human societies*. London: Natural History Museum Publication at 67–68. See also Barclay, HB (1980) *The role of the horse in man's culture*. London: J. A. Allen and Co Ltd at 25, cited in Crossman, G (2010) 'The organisational landscape of the English horse industry: a contrast with Sweden and the Netherlands' PhD thesis, University of Exeter.

39 See, for instance, Longland, A C (2007) 'Starch, sugar and fructans: what are they and how important are they in diets for horses?' In Harris, PA, Hill SJ, Elliott, J and Bailey, SR (eds) *The latest findings in laminitis research* (Proceedings of First WALTHAM – Royal Veterinary College Laminitis Conference).

40 *Ibid.*

41 O'Daniel-Cantrell, D (2011) *The horsemen of Israel: horses and chariotry in monarchic Israel (ninth–eighth centuries BCE)*. History, Archaeology, and Culture of the Levant 1. Winona Lake: Eisenbrauns, at 37.

42 *Ibid.* at 73.

the device of a horse, such as the ‘four horsemen’.<sup>43</sup> The horse remained a crucial weapon throughout history and its widespread military use did not end with World War I either, as is the popular conception.<sup>44</sup> In World War II, the Axis forces relied heavily on horses for transport of men and *materiel*. For instance the German army, lacking the mass production capabilities of the Allies, had to rely on 1.1 million horses to move its military.<sup>45</sup>

Apart from specialised units<sup>46</sup> the military horse now has a ceremonial role. What is relevant for the argument in this article, however, is that the horse is now best constructed as a non-human athlete, that the *quasi*-human, ‘comrade in arms’ status afforded to horses by soldiers is akin to that which elite sportswomen and men give their mounts. In turn, sports like polo and eventing have military roots. This elevated comradely status was actually encouraged in cavalry and artillery units during war by the High Command and the relationship is well illustrated in a famous World War I painting, where a private comforts his dying horse, ‘Goodbye Old Man’.<sup>47</sup> For Flynn, ‘Matania’s portrayal [in ‘Goodbye Old Man’] of death itself betrays concerns far more painful than those pertaining to what is, when everything is taken into account, simply a dying horse’. She argues that this type of portrayal was part of a wider theme:

... the soldier’s horse came to inhabit a space between myth and reality, in which it was often imbued with allegorical meaning and symbolism far beyond the reality of its physical existence ... it provided consolation [to the population at home] by inferring that [compassion and kindness] would [also] be afforded to the soldier himself.<sup>48</sup>

Furthermore, the special relationship in war had an immediate benefit for the soldiers, it had the potential to mean that members of both species survived combat. Trust between rider and mount, driver and team and vice versa meant survival was more likely than if no such faith existed. The British Army knew this and nurtured the relationship.<sup>49</sup>

The social construct of the horse as ‘athlete’ needs to be viewed in the context of entertainment, culture and commerce as well as sport and history. There is no doubt that the horse has been a vital source of physical power in human history: it has pulled ploughs and transported manufactured

goods all over the world. The evidence is clear; Coke opined that the payment of a lesser sum could never be satisfaction of a greater sum in terms of debt under a contract. However, he suggested that a gift of a ‘horse, hawk or robe’ might be good consideration as an alternative to money because of its potential extra usefulness to the plaintiff.<sup>50</sup> Swain noted how the sheer volume of horse sales, the chicanery employed by horse dealers, and the attendant numbers of disputes, helped develop consumer law.<sup>51</sup> Commerce using horses made daily interaction with them virtually inevitable for large portions of the population. This in turn influences popular culture. Art and literature demonstrate these intersections further. Swift chose horses as the civilised race to emphasise man’s bestiality in *Gulliver’s Travels* – ‘The Country of the Houyhnhnms’<sup>52</sup> with satire, contrasting brutish mankind with the grace and civility of the horses.<sup>53</sup> Poets have written about the horse’s contribution to mankind’s history. Duncan<sup>54</sup> considered that ‘... England’s past has been borne on his back. All our history is his industry; we are his heirs, he our inheritance’. In addition, Shakespeare eulogises the horse in his plays.<sup>55</sup> The horse is an enduring cultural icon, statues celebrating triumph or turning points in a society’s history have frequently been representations of famous humans and also their horses. These have an enduring quality that will far outlive the era of horse *qua* transport. The sculptures on the Brandenburg Gate in Berlin, the statue of Boudicca next to Westminster Bridge and the Houses of Parliament in London, the statue of General Andrew Jackson in Lafayette Park, Washington, DC and that of Simon Bolivar in Plaza Bolivar, Caracas, Venezuela are classic examples. This tendency to venerate the horse in sculpture has a long history. The 110-metre-long Bronze-Age Uffington white horse carved into the Oxfordshire hillside and the 400 tonne ‘Kelpies’ metal Clydesdale horse head statues dominating the Scottish skyline completed in 2013<sup>56</sup> show how enduring a phenomenon this is. Across the Atlantic, the Clydesdale heavy horse is deeply embedded in the US psyche. Global drinks firm Budweiser use it in advertising and public relations exercises and maintain a herd of 250 animals for this sole purpose.<sup>57</sup> This horse now enters our collective conscious not through daily interactions on the street but through beer commercials. In turn, it contributes to commerce and industry as part of an ongoing and sophisticated advertising campaign worth many millions of dollars. For Witkowski, the company makes a deliberate effort to associate itself with the qualities of the breed<sup>58</sup> and Budweiser themselves

43 Revelation 6:2 and 19:11–16 (NIV).

44 Butler, S (2011) *The war horses*. Wellington: Halsgrove, at 48.

45 US War Department *Military Intelligence Bulletin*, March 1946, at p 54, available at: <https://archive.org/details/1946-03IntelligenceBulletin> (accessed 25 July 2017).

46 See Michaels, J (2014) ‘New horsepower for war zones: Special Forces saddle up’ *USA Today*, 22/6/14 available at: <http://www.usatoday.com/story/news/nation/2014/06/22/horses-marines-afghanistan/10744395/> and the Indonesian Army Cavalry website, available at: <http://denkavkud-pussenkav TNIAD.mil.id/kata-sambutan-dandenkavkud-pussenkav/> (accessed 25 July 2017).

47 ‘Goodbye Old Man: an incident on the road to a battery position in southern Flanders’ painted by Fortunino Matania 1916.

48 Flynn, J (2012) ‘Sense and sentimentality: a critical study of the influence of myth in portrayals of the soldier and horse during World War One’. Conference Proceedings, University of Exeter: *Critical perspectives on animals in society* at 28.

49 See Dierendonck, M and Goodwin, D (2005) ‘Social contact in horses: implications for horse-human interactions’. In de Jonge, FH and van den Bos, R (eds) *The human–animal relationship*, Assen: Van Gorcum; and Keaveney, SM (2008) ‘Equines and their human companions’ *Journal of Business Research* 61, 444–454, cited in Flynn, J (n 48 above) at 27.

50 *Pinnel’s Case* [1602] 5 Co. Rep. 117a.

51 Swain, W (2012) ‘Horse sales: the problem of consumer contracts from a historical perspective’. In Devenney, J and Kenny, M (eds) *European consumer protection*. Cambridge: CUP at 295.

52 Swift, J (1726/2005) *Gulliver’s travels*. Oxford: OUP at 205.

53 *Ibid.* at 211.

54 Baber, L (2010) ‘The horse’ by Ronald Duncan. In *Amazing grays, amazing grace: pursuing relationship with God, horses and one another*, Mustang: Tate, at 54. This poem has been read at the gala night of the annual British Horse of the Year Show every year since its inception in 1949.

55 See for instance, *Henry V*, Act 3, scene 7.

56 ‘A magic moment for Kelpies’, *The Times* (London, 28 November 2013) at 1 and 4.

57 Budweiser Clydesdales, available at: <http://www.budweiser.com/en/clydesdales/history.html> (accessed 25 July 2017).

58 Witkowski, M (2003) ‘The bottle that isn’t there and the duck that can’t be heard: the “subjective correlative” in commercial messages’ *Studies in Media & Information Literacy Education*, University of Toronto Press, 3(3) at 7.

refer to it as an 'American icon'.<sup>59</sup> Agrawal and Kamakura argue that the only justification for this level of expenditure is the hope of greater future sales, revenue and profit. This hope will only be realised if very large numbers of people are influenced by having seen [something] they construct as a celebrity espousing the benefits of a given product.<sup>60</sup> Some horses have become sporting celebrities themselves,<sup>61</sup> reaching celebrity status through their sporting or athletic prowess when teamed up with a suitably competent rider. For Sigman, 'Sports matter in society. The phrase "It's only a game" is patently false'.<sup>62</sup> Sport is a socio-cultural phenomenon and the elite class of athlete it produces are celebrities. It is evident that celebrity status can attach to some particularly successful equines as well. Examples would include Red Rum,<sup>63</sup> Milton<sup>64</sup> and Black Caviar,<sup>65</sup> who, like many others, have become household names.

Evidence for the 'special relationship' between humankind and horses can be found in the social sciences, education and therapy as well. There have been a number of studies by researchers in human psychology on horses.<sup>66</sup> Proops and Mcomb in their study of 'cross modal' individual human recognition by animals chose horses rather than other animals because of the unique relationship they have with our species, the '... complex social organization and close relationship to man, making individual recognition of humans a highly functional ability'.<sup>67</sup> That relationship has also given rise to a branch of human therapy. The use of horses in therapy is well established, with organisations like Riding for the Disabled Association (RDA) having been in existence for some 40 years. The term 'hippotherapy' has been coined with increasing numbers of medical professionals recognising that 'there are significant therapeutic benefits' for the human derived from the inter-species interaction.<sup>68</sup> For All, Loving

59 See <http://www.budweiser.com/clydesdales/history.html> (accessed 25 July 2017). Budweiser Clydesdale teams have indeed featured prominently in two presidential inaugurations, that of Harry Truman in 1949 and of President Clinton in 1993.

60 Agrawal, J and Kamakura, W (1995) 'The economic worth of celebrity endorsers: an event study analysis' *Journal of Marketing* 59(3) (July 1995) 56–62, at 56.

61 Black Caviar featured on the front cover of *Vogue Australia*, December 2012 Issue.

62 Sigman, S. (2008) 'Are we all dopes – a behavioral law and economics approach to legal regulation of doping in sports symposium: doping in sports: legal and ethical issues' *Marquette Sports Law Review* 19(1) at 184.

63 Hudson, I (2014) 'Grand National 2014: the story of Red Rum – the three-time winner' *The Independent online*, 2 April 2014, available at: <http://www.independent.co.uk/sport/racing/grand-national-2014-the-story-of-red-rum-the-three-time-winner-9232702.html> (accessed 7 November 2017).

64 'Milton: 12 fascinating facts about our hero' *Horse and Hound online*, 12 June 2015, available at: <http://www.horseandhound.co.uk/features/milton-great-horses-in-history-180542>.

65 Black Caviar Official Fansite, available at: <http://www.blackcaviar.net.au/black-spots-%E2%80%93-little-known-facts-about-black-caviar> (accessed 25 July 2017).

66 See for example, Lampe JF and Andre J (2012) 'Cross-modal recognition of human individuals in domestic horses (*Equus caballus*)' *Anim Cogn.* 15(4):623–30; Krueger K, Flaugar B, Farmer K and Maros K, (2011) 'Horses (*Equus caballus*) use human local enhancement cues and adjust to human attention' *Anim Cogn.* 14(2):187–201; Henselek Y, Fischer J and Schloegl C (2012) 'Does the stimulus type influence horses' performance in a quantity discrimination task?' *Front Psychol.* 3 at 504.

67 Note 29 above.

68 Riding for the Disabled website available at: <http://www.rda.org.uk/therapy/> (accessed 30 October 2014). The international body for hippotherapy is the Federation of Horses in Education and Therapy International (HETI) which was founded in 1980 in Belgium as a non-profit organisation.

and Crane even the simplest form of hippotherapy, a form of 'pet visitation', can have therapeutic benefits including 'fostering socialisation, increasing a withdrawn person's responsiveness and animation, giving pleasure, enhancing morale ... and reducing dependence on psychotropic medication'.<sup>69</sup> In the United Kingdom, *Leading Equine Assisted Therapy*,<sup>70</sup> *The Bayberry Clinic*<sup>71</sup> and *Sirona Therapeutic Horsemanship*<sup>72</sup> all offer Equine Assisted Therapy (EAT), Equine Assisted Psychotherapy (EAP) and Equine Facilitated Learning (EFL). More recently there is growth in the use of horses to deal with criminal justice issues as a method of rehabilitation to mitigate youth offending, anger management and alcohol.

The cultural impact of the horse can even be seen in the development of the English language as used today. Humans drive to work along dual 'carriageways' in cars measured in 'horsepower' and must beware 'Trojan' (horse) viruses on our computers. We prefer to act in a timely fashion and not 'shut the stable door after the horse has bolted'. We speak of 'reining in' someone's enthusiasm but they may not take heed, especially if they have the 'bit between their teeth'. Avoiding putting a 'square peg in a round hole' might alternatively be expressed as 'horses for courses'. We value gratitude and would not approve of those who 'look a gift horse in the mouth' and of course 'only fools and horses work' to quote both the idiom and the long-running BBC television comedy series. A person may be referred to as a 'dark horse' and after all 'you can lead a horse to water but you can't make it drink'. Of course, these terms in current use no more prove the place of the horse in society than does the use of 'status quo', 'stadium' and 'data' prove that Latin is a thriving language. However, the continuing presence of horse-based metaphors and idioms in our speech is circumstantial evidence for understanding the horse as a new social construction.

This social construction discussed above is not that of a *human but with animal form*, it is much more nuanced than that. The new social construction reflects the deep connections between the species, as the above discourse demonstrates. When considering the horse in elite sport, this multiplicity of interactions and understandings come together and we should understand the competition horse as a 'non-human athlete', part of a team of two athletes. Thus, when SGBs, academic and sector commentators, and disciplinary tribunal members refer to the horse as 'athlete', that is based on a knowable truth, not just quaint use of phraseology.<sup>73</sup>

69 All, A, Loving, G and Crane, L (1999) 'Animals, horseback riding and implications for rehab therapy' *Journal of Rehabilitation* 65 at 49.

70 Leading Equine Assisted therapy website available at: [www.leapequine.com/](http://www.leapequine.com/) (accessed 1 February 2015).

71 Bayberry Clinic website available at: [www.bayberry.org.uk](http://www.bayberry.org.uk) (accessed 1 February 2015).

72 Sirona website available at: <http://www.sironac.com/> (accessed 1 February 2015).

73 Merritt J (n 9 above) at 201–202.



## So why clone this non-human athlete?

This article will now consider what is attractive about cloning for sport and, in turn, why this technology presents a regulatory problem. Cloning is not easy: there are large overheads associated with the equipment, personnel and real estate required when compared to natural breeding techniques and an only gradually declining failure rate to consider.<sup>74</sup> With these factors in mind, why is cloning being used at all? The answer may not be comfortable reading and may be rooted in the real reasons why humans enjoy sport. George Orwell famously opined that '[s]erious sport has nothing to do with fair play. It is bound up with hatred, jealousy, boastfulness, disregard of all rules and sadistic pleasure in witnessing violence: in other words, it is war minus the shooting'.<sup>75</sup> Orwell clearly had little regard for the Corinthian Ideals,<sup>76</sup> he saw sport as the pursuit of success almost at any cost rather than based on any notion of 'it's not the winning it's the taking part'. This perspective takes sport as entertainment but based on the same dubious viewing choices made by those queueing to watch gladiatorial mortal combat in the Coliseum of Ancient Rome. Put another way, the excitement is proportional to the spectacle rather than the skill displayed and will not be diminished if there is some greater or lesser harm suffered by the participants, including, presumably, animals.

Anderson makes reference to the importance of the entertainment value of sport and the extent to which the sporting public, sponsors and TV companies financially underwrite athletes and their sports. Anderson points out that all these stakeholders 'enjoy [competitive elite sport] but they ... enjoy it even more when it is accompanied by world record times in the pool or on the track, or by unprecedented acts of endurance by cyclists over mountain stages'.<sup>77</sup> To take this point further, there is some form of 'enjoyment' or perhaps 'adrenalin rush' experienced by spectators when those Herculean efforts actually result in injury or death. This enjoyment is a legitimised version of what our ancestors gained from watching mortal combat between humans and between humans and animals. The possibility of a fatal crash in a Formula One event<sup>78</sup> or death in a boxing bout<sup>79</sup> adds to the excitement of the spectator. In horse racing the annual clamour of protest regarding the dangers, mostly to horses, inherent in the Grand National<sup>80</sup> does little to dent its popularity. The FEI sport of eventing is second only to boxing in terms of its statistics for injuries and deaths to

74 See, for instance, Solter, D (2000) 'Mammalian cloning: advances and limitations' *Genetics* 1, 199–206.

75 Orwell, G (1945) *The sporting spirit*, December 1945, cited in Griffith-Jones, D, *Law and the business of sport*. Haywards Heath, 2007, preface.

76 The modern incarnation of the Olympic Ideals can be found in the Olympic Charter, pp13–14 available at: [https://stillmed.olympic.org/Documents/olympic\\_charter\\_en.pdf](https://stillmed.olympic.org/Documents/olympic_charter_en.pdf) (accessed 7 November 2017).

77 Anderson, J (2013) 'Doping, sport and the law: time for repeal of prohibition?' *International Journal of Law in Context* 9(2), 135–159, at 144.

78 'Deaths in Formula One' available at <http://en.espn.co.uk/f1/motorsport/story/3838.html> (accessed 4 June 2015).

79 'Tributes to "white collar" boxer Lance Ferguson-Prayogg' available at <http://www.bbc.co.uk/news/uk-england-nottinghamshire-27991351> (accessed 4 June 2015).

80 Moss, S (2013) 'The Grand National: sport or barbarity? Horse racing's big day on trial' available at <http://www.theguardian.com/sport/2013/apr/05/grand-national-sport-or-barbarity> (accessed 4 June 2015).

human participants. Even two deaths in one weekend is not particularly startling.<sup>81</sup> Although rarely openly acknowledged, the 'adrenalin' factor inherent in watching sport in which participants may be harmed will have some relationship to ticket sales and viewing figures. This all suggests that it is not just genuine sporting endeavour which motivates spectators to pay to experience an event. With that in mind what matters most is the spectacle and this can be enhanced in a number of ways, including by genetics.

The increasing commercialisation and commodification of sport only reinforces the argument that what matters is entertainment not sporting ideals. Ever higher stakes are involved in most of the popular sports. The lure of money and fame motivates players, athletes, coaches and owners to look ever harder for that competitive edge and gaining that through even undetected doping has its limits. The sums involved are considerable, equestrianism does not attract the eye-watering figures that premiership football can but at its pinnacle there are still six figures to be had. Olympic gold winning dressage horse *Valegro* was to have been sold for a rumoured £6 million straight after success at the 2012 Games<sup>82</sup> and champion race-horses can realise even more. This is to say nothing of the market for their semen or offspring. Sport is no longer simply sport; in its various forms it is a commodity, a product. Unsurprisingly then we have come to think of sport as an 'industry'. More than 3 per cent of world trade comes from this sector, more than 1 per cent of the combined GNP of all the EU Member States, and in the UK sport is worth around £12 billion a year in consumer spending. It also provides direct employment for in the region of half a million people.<sup>83</sup>

Similarly, the stakes wagered on the outcome of competition, even the minutiae of sporting encounters (the so called 'spot betting' of the previous section), can be large. In January 2010, a report by Deloitte accountants, commissioned by the bookmakers Ladbrokes, found that over 100,000 people are employed by the entire betting industry in the UK, and overall it contributes £6 billion to the economy, and *inter alia* that 15 per cent of horseracing's annual income comes from betting.<sup>84</sup> This article will return to the potential impact of cloning on the gambling sector later.

As has been discussed, the horse has migrated to a niche position as 'athlete' or even 'athlete celebrity' in our collective consciousness. Elite sport aside, however, the contribution the wider horse industry makes to UK society is still considerable. In 2008, the sector's annual turnover was estimated by the British Horse Industry Confederation (BHIC) to exceed £7 billion, roughly the size of the entire UK farming sector. According to the BHIC, the industry directly employs 70,000 people and there are further estimated to be a million horses in the UK owned or cared for by around

81 Phillips, C. (2014) 'Second rider killed on black day for eventing', *Horse and Hound*, available at: <http://www.horseandhound.co.uk/news/jordan-mcdonald-killed-nunney-eventing-433481> (accessed 25 October 2015).

82 *Horse and Hound online*, available at: <http://www.horseandhound.co.uk/news/397/313766.html> (accessed 20 August 2012).

83 Gardiner, J *et al.* (n 13 above) at 37.

84 Association of British Bookmakers Ltd *The full picture – measuring the economic contribution of the British betting industry* (2<sup>nd</sup> edn) available at: [http://abb.uk.com/wp-content/uploads/2014/09/The\\_full\\_picture-2nd\\_editionMeasuring\\_the\\_economic\\_contribution\\_of\\_the\\_British\\_Betting\\_Industry\\_March2013\\_HI-RES.pdf](http://abb.uk.com/wp-content/uploads/2014/09/The_full_picture-2nd_editionMeasuring_the_economic_contribution_of_the_British_Betting_Industry_March2013_HI-RES.pdf) (accessed 27 July 2017).

half a million people. Around 4.3 million people are classified as riders in the UK with a little less than half riding at least once a month. This is a greater participation popularity than that enjoyed by cricket, rugby or fishing.<sup>85</sup> This is the potential size of the market when endorsement, sponsorship or merchandising deals for equine products are negotiated. In turn, these deals are where the income for equestrian sports personalities is generated, not with prize money, although that may be less true with horse racing. Sport in its current form would not have the scale or international importance without its commercial aspect, which means that ever more sophisticated ways are likely to be sought to maximise entertainment, spectacle and thus income generation. Performance Enhancing Drugs (PEDs) are often presented as an affront to the Corinthian sporting ideal; however, the real situation is that the playing field is anything but level in the first place. As Anderson points out, elite sportsmen and women have benefitted from a 'genetic lottery' anyway; examples include the swimmer with size 17 feet and the cyclist with an eight-litre lung capacity.<sup>86</sup> The argument runs the same with equine sport in so far as the field is weighted towards those who can afford the horses with exceptional physical capabilities, or can afford to clone them.

If amazing feats of endurance, strength and skill are at or very near the top of the list of things people will pay to see at a sports event, then, doping aside, cloning may be about to come to the fore. In December 1997, the scientific community, still reeling from news of Dolly the sheep, was alarmed to hear that Richard Seed intended to clone human beings using the same technology.<sup>87</sup> In the United States, President Clinton moved to bar federal funding for any project of this nature and established the National Bioethics Advisory Commission (NBAC) to review the ethical, scientific and legal questions surrounding human cloning.<sup>88</sup> The American Medical Association and World Medical Association together with the World Health Organisation, most US states, 19 European countries and the Pope all came out against human cloning.<sup>89</sup> Some continue to question whether these bans and edicts have any scientific or rational basis.<sup>90</sup> However there is little doubt bans such as those in the United States will be difficult to challenge in court for now.<sup>91</sup> Genetics make up a large part of why athletes are successful. It is difficult to be precise or generalise across the sports, but training is only part of the picture, however rigorous and despite the level of commitment shown.<sup>92</sup> The interest shown by athletes and their trainers in this new technology is therefore very great.<sup>93</sup>

85 Crossman, G (2010) *The organisational landscape of the English horse industry: a contrast with Sweden and the Netherlands* (PhD thesis) Exeter University, at 17–19, available at: <https://ore.exeter.ac.uk/repository/bitstream/handle/10036/111475/CrossmanG.pdf?sequence=2> (accessed 25 July 2017).

86 Anderson, J (2010) *Modern Sports Law*. Oxford: Hart, at 163.

87 Andrews, L (1998) 'Is there a right to clone? Constitutional challenges to bans on human cloning' *Harvard Journal of Law and Technology* 11(3) at 644.

88 *Ibid.*

89 *Ibid.* at 644–646.

90 See for instance Blackford, R (2005) 'Human cloning and "posthuman" society' *Monash Bioethics Review* 24(1), 10–26.

91 Andrews, L (1998) 'Is there a right to clone? Constitutional challenges to bans on human cloning' *Harvard Journal of Law and Technology* 11(3), at 676.

92 Tucker, R (2012) 'What makes champions? A review of the relative contribution of genes and training to sporting success' *Br. J Sports Med.* 46, at 560.

93 Holland S (2012) *Arguing about bioethics*. London: Routledge, at 94.

Given the above, there is no immediate prospect of a cloned human athlete but that is not the case with equines. In 2003 the world's first cloned horse was born<sup>94</sup> and there are now a small number of clones that are being considered for competition in equestrianism.<sup>95</sup> Currently the FEI does not explicitly prohibit competing using clones. The British Horseracing Authority (BHA) does but, as will be discussed later, that may not always be the case. The irony is that a tiny trace of capsaicin or 'bute' can have devastating consequences but genetically engineering the entire animal carries no sanction. In horse racing it is acknowledged that there is only so much that even generations of selective breeding can do and an era dominated by clones may be just around the corner.<sup>96</sup> It seems then that equestrianism and horse racing might be where at least some of the ethical, legal and scientific issues in cloning athletes might be tested. The Australian racehorse Black Caviar has been phenomenally successful, mostly due, it is said, to his huge lung capacity and large, for a racehorse, frame at 620kg.<sup>97</sup> If these physical attributes could be replicated by cloning technology, the physiology and temperament of the clones would be much more predictable than when using current selective breeding techniques. The issues are ably demonstrated by developments in polo in Argentina particularly. The prize mare Dolfina Cuartetera has produced six clones that are said to have 'even greater qualities' than the mother. This animal is ridden for the champion team La Dolfina. Another mare, Alazanas Birra, has produced at least two clones; this horse is considered unique and was 'prized in every Open final she ever played, the best of which was the AACCP prize for Best Playing Polo in Palermo in 2000, 2001, and 2004. She was also nominated for the same prize in 2002, 2007 and 2008. She was named BPP of the Hurlingham Open final in 2003 and 2004'.<sup>98</sup> The equestrian press is already noting that this development '... will only mean that the superpowers in the sport – namely four or five families and set-ups – become even greater super powers'.<sup>99</sup>

Dolly the sheep was cloned using adult cells and 'transgenesis', which is the process of introducing an external gene into a living organism. There were experiments on mice, dating as far back as the 1980s, using this technique but using embryonic stem cells. Dolly lived between 5 July 1996 and 14 February 2003 and had several offspring.<sup>100</sup> This technology is the basis for human cloning experiments too and the advent of cloned human athletes has never been convincingly discounted. Indeed, for Miah, publicly acknowledged human cloning may not be so far away. Whilst this may seem futuristic, Miah points out that as long ago as July 2002 the

94 'World's first cloned horse is born', available at <https://www.newscientist.com/article/dn4026-worlds-first-cloned-horse-is-born/> (accessed 25 October 2015).

95 Cuckson, P (n 17 above).

96 Read, A (1997) 'Cloning for gold' *Br J Sports Med* 31, at 174.

97 Black Caviar Official Fansite, available at: <http://www.blackcaviar.net.au/black-spots-%E2%80%93-little-known-facts-about-black-caviar> (accessed 25 July 2017).

98 Davies, G (2016) 'Cloning in polo has arrived and set to be talk of the town in Argentine season' *Daily Telegraph online*, available at <http://www.telegraph.co.uk/polo/2016/10/21/cloning-in-polo-has-arrived-and-set-to-be-talk-of-the-town-in-ar/> (accessed 18 July 2017).

99 *Ibid.*

100 National Museum of Scotland: <http://www.nms.ac.uk/explore/collections-stories/natural-sciences/dolly-the-sheep/> (accessed 25 July 2017).



US President's Council on Bioethics met to discuss the ethical implications of genetic enhancement in human sport. Miah also acknowledges that, *inter alia*, genetically modified horses already existed at the time he was writing.<sup>101</sup> If the natural course of these developments is that the most successful racehorses,<sup>102</sup> show jumpers and dressage mounts are to be cloned *en masse*, the economic incentive could be huge since many of the vagaries of the breeding process would be eliminated. Currently, the semen of a champion stallion sometimes produces champion offspring and sometimes it does not – much will depend on the mare. However, a cloned animal should possess most of the attributes of the donor champion animal, and in some cases those attributes can be exceeded.<sup>103</sup>

The issue for this discourse is that the current regulations struggle to keep up with technological change in regulating cheating as it is. Even the previous Director General of WADA, David Howman, has rated the current doping detection statistics (of humans and horses) 'pathetic' and that currently only 'dopey dopers' were being caught.<sup>104</sup> This despite 258,267 tests being carried out globally in 2010. The perception among the sporting public is that only the 'unlucky or pharmaceutically unsophisticated' get caught,<sup>105</sup> suggesting that the more sophisticated technology used by dopers can result in escaping detection. This is all despite WADA's huge annual detection and sanction expenditure. Miah considers that the international sporting community has now begun to take seriously the possibility that genetics may present ethical issues for elite sport but that it is wholly wrong and counter-productive to subsume genetics under the general 'doping' heading.<sup>106</sup> It is clear that cloned animal athletes are already competing; what is not so obvious is a consistent approach to their regulation. This is because, firstly, an open, transparent and public debate has not been had, in any of the equine sport disciplines, as to whether operating with a cloned horse is cheating or not. Secondly, given the fractured way in which horse sport governance has developed, a consistent approach to cloned animals across the sport is nigh on impossible because of the *interface problem*. This is a problem which this article is the first to acknowledge and explore and will be discussed in due course. First, though, an exploration of the potential for unhealthy dominance in equine sport will be discussed.

101 Miah, A (2004) *Genetically modified athletes: biomedical ethics, gene doping and sport*. Abingdon: Routledge, at 3.

102 Connor, N (2015) 'China "cloning factory" to produce cattle, racehorses and pets', available at <http://www.telegraph.co.uk/news/worldnews/asia/china/12013158/China-cloning-factory-to-produce-cattle-racehorses-and-pets.html> (accessed 25 July 2017).

103 Davies (n 98 above).

104 Anderson, J (2013) 'Doping, sport and the law: time for repeal of prohibition?' *International Journal of Law in Context* 9(2), 135–159, at 141.

105 Connor, J and Mazanov, J (2009) 'Would you dope? A general population test of the golden dilemma' *British Journal of Sports Medicine* 43: 871–72, cited in Anderson, J. (n 104 above).

106 Miah, A (n 101 above) at 6.

## Owning the clone

The FEI position on clones is now clear: '[t]he FEI will not forbid participation of clones or their progenies in FEI competitions [however] the FEI will continue to monitor further research, especially with regard to equine welfare'.<sup>107</sup> The BHA Orders and Rules of Racing currently forbid clones competing in UK horse races but the suggestion of change to the rules on that continues to be raised.<sup>108</sup> Aside from the potential tedium of watching horse sport where the outcome is in little doubt because of the physical attributes of the clones concerned, there is also the issue of intellectual property. Admittedly, applying for a patent for a cloned animal under UK law is *currently* problematic, if not to say a non-starter. Whilst plants are not patentable it is possible to protect the intellectual property in new plant species via the Plant Varieties Act 1997. There is no such equivalent legislation which might be applicable to cloned animals, and recent amendments have not substantively changed the position, originally in section 1(3)(b) Patent Act 1977. This is that patents cannot be granted for animals.<sup>109</sup> The fact is, though, that a raft of biotechnology patents *have* been granted for fundamental genetic research 'tools'. This is because new scientific processes are patentable in principle even if the resultant animal is not. Furthermore the 'oncomouse', a rodent engineered for cancer research purposes, did receive a patent under the European regime. Torremans considers that these developments are indicative of the way things are moving.<sup>110</sup> Further, Torremans argues that the distinction between plants and animals is illogical and that 'this is an area that now calls for reform to allow the patentability of animals without recourse to artificially and atypically narrow interpretations of the law'.<sup>111</sup> Despite views like this, however, an application to patent Dolly in the US Federal Court was refused in May 2014. This was because, in the opinion of the court, her genetic identity to her donor parent rendered her un-patentable.<sup>112</sup> That said, in a case on related issues in Australia, the BRCA1 breast cancer gene was initially given patent protection after an application by Myriad Genetics Inc. The company argued that the nucleic acid they were referring to required human intervention as it was not found in nature. However, in October 2015, that patent was set aside by the High Court on the grounds that BRCA1 was not a patentable invention.<sup>113</sup> If Torremans is right, though, and genetically modified and even cloned animals *do* become patentable, the ramifications could be almost incalculable. The legal trajectory does suggest that the world is on the cusp of that eventuality; and consider,

107 FEI Press Release dated 18 June 2012, available at: <https://inside.fei.org/news/fei-spring-bureau-meeting-update> (accessed 7 November 2017).

108 Miller, M (2017) 'Should racehorses be cloned?' *Sunday Times online*, 15 October 2017, available at: <https://www.thetimes.co.uk/article/should-racehorses-be-cloned-vgtws8n5s> (accessed 7 November 2017).

109 Torremans, P (2010) *Holyoak and Torremans Intellectual Property Law* (7<sup>th</sup> edn). Oxford: Oxford University Press, at 104.

110 *Ibid.* at 103–105.

111 *Ibid.* at 104.

112 Reuters News Agency, available at: <http://www.reuters.com/article/2014/05/08/us-ip-dollysheep-idUSKBN0DO1ON20140508> (accessed 2 June 2015).

113 *D'Arcy v Myriad Genetics Inc & Another* [2015] HCA 35.

for instance, the position where a champion horse in a given discipline is cloned and then patented. The resultant animal would be likely to win or be placed highly almost all of the time and the owners of the patent could entirely control the resultant bloodline and command their price for an offspring from it. This is not the case with current breeding practices; once the semen of a champion horse is purchased, without specific agreement to the contrary the donor horse's owner has no further rights over the progeny. Thus, with a patented clone animal, potentially at a stroke not even the faintest resemblance of fair competition on the field of play remains and a very unhealthy monopoly indeed is created. This is because an owner of a clone could retain control over the subsequent offspring under IP law and effectively prevent it from competing against the donor animal. Furthermore, she or he could impose a host of other restrictions which have a massive anti-competitive effect in the sport. This is, if they agree to sell on clones at all: they may prefer to guarantee their dominance by not doing so.

### The effect of cloning on gambling: 'doom-mongering' or logic?

The sporting world should not underestimate the potentially catastrophic effects on horse sport from large numbers of clones impacting on the *gambling* sector. There is much academic literature on the economic and social problems arising from gambling on sport.<sup>114</sup> The most relevant for this article is what makes it most addictive, its ability to provide suspense.<sup>115</sup> Whatever the moral question, gambling, although heavily regulated in the UK,<sup>116</sup> is enormously important for horse racing. The Deloitte report for Ladbrokes in 2010, already discussed, found that 15 per cent of the income received by horse racing in the UK comes from wagering. For Munting, it is only necessary to look to the United States to see what happens to horse racing when gambling is removed from the equation. In states that outlawed gambling on horses, mostly in the 1920s, all racetracks closed.<sup>117</sup>

The relationship between sport and gambling is an old one – for Forrest, almost as old as modern sport itself.<sup>118</sup> Throughout this history the major sports have had crises of integrity centred on betting. Cricket and baseball, for instance, were both tarred with allegations of match fixing well before the turn of the 20th century and since.<sup>119</sup> The level of concern about betting, integrity and sports is new, however. In 2012, the then Director General of WADA called for a world sports integrity agency modelled on his

114 See, for instance, Forrest, D (2011) 'Betting and the integrity of sport' in Anderson, P, Blackshaw, I, Sieckmann, C and Soek, J (2011) *Sport betting: law and policy*. The Hague: T.M.C. ASSER Press, at 14.

115 Mullet, E. *et al.* (1994) 'Probability, value, and ... suspense' *Journal of Economic Psychology* 15(3), 537–557.

116 Gambling Act 2005.

117 Munting, R (1996) *An economic and social history of gambling in Britain and the USA*. Manchester University Press at 36.

118 Forrest, D (n 114 above).

119 *Ibid.* at 15.

organisation to combat 'doping, betting, bribery and corruption'<sup>120</sup> issues, citing the difficulties individual SGBs have in what is effectively a fight against organised trans-national crime.<sup>121</sup> This is unsurprising as even state policing agencies struggle to tackle trans-national crime effectively because of jurisdictional boundaries that mean nothing to the gangs.<sup>122</sup> Howman cites estimates that the criminal underworld now 'controls' at least 25 per cent of world sport<sup>123</sup> in support of his argument. This point is not restricted to racing, although it is a generally received misconception that only horse racing is affected by betting and betting irregularity. If the regulatory debate called for in this article were had, and cloning was restricted or banned, then this is another area where corruption and irregularity could flourish. Equine SGBs restricted to their own artificially created fiefdoms will not be able to cope. This is considered further within the *interface problem* later.

Forrest notes that since 2000 major SGBs have commissioned reports into gambling-related integrity problems, adding that the IOC has since the 2008 Games required all Olympic athletes to declare that they are not involved in betting. UEFA now has a state-of-the-art system for monitoring betting patterns worldwide and the UK Government in 2010 'set out policy requiring sports to defend themselves against fixers'.<sup>124</sup> The Department for Culture, Media and Sport's instruction was not limited to the obvious sports either, namely horse racing and football. All sports are expected to be alive to the possibility of betting-generated corruption. Forrest goes on to cite examples of opportunities from cricket, basketball, tennis, baseball, darts and snooker, where athletes have already or could potentially throw a game or cause a certain in-play event to occur in return for money.<sup>125</sup> Linked to this is an increase in live or 'in-play' betting, often 'proposition' or spot betting. This is possible because of the new technology and makes it more likely that betting on unknowns after the start of play will be attractive. The timing of the first throw-ins during a soccer match or the number of red cards shown, are examples of this. Each are relatively easy to fix by individual players, making it unnecessary to bribe a whole team. Further, the emergence of betting exchanges makes it possible to bet on someone or something to lose, which can be procured much more easily than securing a win.<sup>126</sup> There is, therefore, a need to be aware of the possibility of betting problems in sports not historically linked with betting in any substantial way, such as other equine sports apart from horse racing. For Forrest, there should be no complacency in sports with little acknowledged connection with betting. He chooses to cite golf and badminton as examples, but many of the risk factors he discusses apply to equestrianism. Essentially for Forrest, where wages are, in a relative sense, low, there is vulnerability to this kind of corruption. As in any 'criminal' activity a person considering

120 Howman, D (2012) 'Supporting the integrity of sport and combatting corruption', 23 *Marq.Sports L. Rev.*, at 247.

121 Merritt J (n 73 above).

122 Newburn, T (2007) *Criminology* (2nd edn). London: Routledge, 430–442.

123 Howman, D (n 120 above).

124 Department for Culture Media and Sport (2010) *Report of the sports betting integrity panel*. (London: Department for Culture, Media and Sport).

125 Forrest, D (n 114 above) at 23.

126 *Ibid.* at 18–22.

taking a bribe usually acts out of rational choice, Jeremy Bentham's 'pleasure/pain' dynamic at play in other words.<sup>127</sup> The sportsperson must weigh in the balance the cost of being discovered against the financial reward of accepting the bribe: low-level football competition and the sport of darts are examples where there are relatively low player wages and/or low levels of prize money<sup>128</sup> as is the case with less popular equine sports. There are a number of further reasons why equestrianism, carriage driving, reining or even horse-ball are just as vulnerable to spot betting and associated fixing simply by following Forrest's logic. Sports which have distinct stages in them are particularly attractive to fixers: examples include tennis and darts 'sets'. A player may be bribed to lose a set and the gambler can bet against the player before the match starts then take advantage of the lengthened odds recalculated after the lost stage. This can now occur 'in-play' as the gambler places a bet for the player to win and with the right stake profit is virtually guaranteed.<sup>129</sup> There are 'legs' in the Longines Global Champions Tour in show jumping, there are four to six chukkas in polo and horse-ball, like football is a 'game of two halves'. Eventing has three distinct stages in every competition, the dressage, cross-country and show-jumping phases. It would be an attractive proposition to both rider and gambling syndicate for the participant to be persuaded to throw, say, the dressage or cross-country phase. In this way of operating competitors 'throwing' a stage may go unnoticed and, as a double 'benefit', the feelings of guilt and shame experienced by a player, which they must factor in to the 'pleasure/pain' dynamic mentioned earlier can be lessened if the particular 'ride' was not necessarily their main hope for a placing. This is often the case when a competitor enters more than one horse in an eventing competition. One of the highest risks in all disciplines are competitions of relatively little consequence for the competitor; Forrest cites 'dead rubbers' in cricket as an example, where the outcome of the tournament is already decided.<sup>130</sup> Those tasked with monitoring equestrianism for signs of spot betting would be well advised to focus on legs of international competition in any discipline at the stage where the winner or winning team is all but a foregone conclusion, therefore. These stages in a competition in other sports have been the subject of allegations and proven cases of corruption.<sup>131</sup>

The foregoing discourse establishes that betting and betting corruption may well come to have an effect in a greater number of equine sports disciplines than is currently acknowledged. Further, it has been established above that horse racing cannot afford for punters to lose interest in races that are a foregone conclusion because they have clones of outstanding horses competing in them. It also must be the case that bookmakers would not offer very good odds on horses that are almost certain to win. A loss of interest in gambling on horses could very well cause race courses to close. These are the potential problems that cloning presents the world of horse sport with and what is needed is a consistent approach to cloning *vis-à-vis*

127 Newburn, T. (n 122 above) at 117–119.

128 Forrest, D (n 114 above) at 23.

129 *Ibid.* at 20.

130 *Ibid.* at 23.

131 *Ibid.*

betting but also with regard to integrity issues generally across the various equine sports is necessary. This is not likely to be possible given the *interface problem* to be discussed.

## The fractured equine sports governance landscape – the interface problem

When there are doping or other integrity scandals involving a particular equine sport, the SGBs and International Sporting Federations (ISFs) not directly implicated are quick to distance themselves from any association with wrongdoing. As happened, for instance, on the discovery of banned substances at a Godolphin racing yard by DEFRA and a seizure by the UK Border Agency of banned substances incorrectly labelled as 'tack' on board a Royal flight from Dubai arriving at Stansted.<sup>132</sup> At that time, a full list of the drugs seized was passed to the BHA. The BHA were quick to emphasise that 'DEFRA have confirmed ... that they consider there to be no link between the seizure and the racing industry and that the products were not intended for use on thoroughbreds'.<sup>133</sup> This section of the article will show that this type of statement represents a massive oversimplification and should not be accepted without question. To illustrate the point, it is necessary to consider the background to these incidents. In doing so it is important to keep in mind that the points raised apply to a number of other equine sports disciplines that are not as separated from each other as the respective SGBs would like to assert.

The former FEI President, Princess Haya, is married to Sheikh Mohammed bin Rashid Al Maktoum, the monarch of the Emirate of Dubai. The sheikh is a keen competitor and horse owner in the FEI sport of endurance and he also owns Godolphin stables, where thoroughbred race horses are trained to race under BHA rules.<sup>134</sup> In April 2013, the BHA charged Godolphin trainer Mahmood al-Zarooni with offences which included conduct prejudicial to horse racing.<sup>135</sup> In September 2013, it was reported that Mubarak bin Shafya had been found to be training thoroughbreds from a Dubai stables owned by Sheikh Mohammed. What is particularly pertinent about that for the arguments in this section is that bin Shafya had been banned from training FEI endurance horses for doping with steroids and that he was a former colleague of the now disgraced Mahmood al-Zarooni.<sup>136</sup> This predates the advent of the EADCMR clauses on 'prohibited association' but not the BHA equivalent that has been in the Orders and Rules of Racing for some time.<sup>137</sup> It would be very useful to now discuss

132 Riach, J (2013) 'Sheikh Mohammed launches inquiry after police seize drugs from Dubai jet' *The Guardian* (London) available at: <http://www.theguardian.com/sport/2013/sep/29/sheikh-mohammed-inquiry-drugs-dubai> (accessed 25 July 2017).

133 *Ibid.*

134 *Ibid.*

135 Blitz, R (2013) 'Godolphin stable locked down after doping' *Financial Times online* (www.ft.com) (accessed 25 July 2017).

136 Wood, G (2013) 'Dubai case raises new questions for Sheikh Mohammed', *The Guardian online*, 30 September, available at: <http://www.theguardian.com/sport/2013/sep/30/sheikh-mohammed-dubai> (accessed 25 July 2017).

137 Rule (A) 30, BHA Orders and Rules of Racing.



how effective either provision would be in addressing a problem like this should it occur post 1 January 2015 when the EADCMRs were amended on this issue. Put another way, we can now consider how the relevant FEI and BHA provisions on association might work in practice *together*. This should be undertaken bearing in mind that horses competing under the governance of both SGBs could be owned by the same person or small group of people and operate from the same yards. The effectiveness of each set of rules on association *vis-à-vis* competitors, owners and trainers from the other equine sport will be considered in turn.

### Persons sanctioned by the FEI

A person sanctioned for an infraction under the EADCMRs could not ride or train other horses that operate under FEI rules. Articles 2.9.1 and 2.9.2 are clear enough on that as a prohibited association with other competitors and owners on the yards would be unavoidable. The real question is whether such a sanctioned person could 'legally' train racehorses that race under BHA rules and associate with their human counterparts. The relevant provision in the Rules of Racing is Rule (A) 30:

30.3 A Person must not in connection with horseracing in Great Britain associate with

30.3.1 a Disqualified Person; or

30.3.2 a Person who is excluded under Rule 64 ...<sup>138</sup>

Rule (A) 68.1 a 'disqualified person' is someone disqualified by a 'recognised racing authority' and Rule 64 concerns the very wide discretion the BHA has to exclude persons from premises within its jurisdiction. Should a trainer like bin Shafya or al-Zarooni be rendered ineligible by a breach of the EADCMRs, then there appears to be nothing in those regulations to prevent them from working with persons and horses competing under the jurisdiction of the BHA. In addition, there is nothing in the current BHA Rules of Racing to prevent them from doing that either. This comment must necessarily be limited to the UK because the BHA's jurisdiction extends to the UK border and there is no racing ISF as such.<sup>139</sup> This further illustrates the problem of fracture, as the major player in horse sport, as even horse racing itself, cannot claim international consistency in its rules.

It is pertinent now to turn to the position where a person is ineligible by virtue of a BHA disciplinary finding and to consider whether they could train horses competing under FEI rules without a breach of Article 2.9.1 and 2.9.2 of the EADCMRs.

<sup>138</sup> BHA Orders and Rules of Racing, available at <http://rules.britishhorseracing.com/Orders-and-rules&staticID=126195&depth=3> (accessed 28 May 2015).

<sup>139</sup> The International Federation of Horse Racing Authorities (IFHRA) does attempt to provide some consistency in racing governance across the globe but it does not have the true status of an ISF.

### Persons sanctioned by the BHA

It has been shown that the changes to the EADCMRs consequent on the January 2015 changes to the WADA Code prohibit certain associations. These are professional associations with a person who 'has been convicted or found in a criminal, disciplinary or professional proceeding to have engaged in conduct which would have constituted a violation of anti-doping rules if Code-compliant rules had been applicable to such Person'.<sup>140</sup> The key words here are 'if Code-compliant rules had been applicable to such Person'. This is because the standard of proof is markedly different under the Rules of Racing compared to that in the FEI's Code-compliant EADCMRs. An FEI tribunal and the Court of Arbitration for Sport (CAS) would require that the doping finding is proved to the 'comfortable satisfaction' of the panel. The BHA's Appeal Board rejected any other standard of proof other than 'on the balance of probabilities' in the *It's a Man's World* Case.<sup>141</sup> This is the civil standard in most Anglo-American legal systems and is represented by the simple statement that it is 'more likely than not' that 'X' is liable. 'Comfortable satisfaction' is the higher standard of the two<sup>142</sup> and consequently it does *not* follow that someone found liable for a breach of the Rules of Racing would have been similarly found liable of a 'violation of anti-doping rules if Code-compliant rules had been applicable to such Person'. In fact, it is hard to see how a such a conclusion could be reached unless the previous doping case that was before the BHA were retried from first principles under the FEI rules in a kind of 'voir dire' during the case on 'prohibited association'.

The situation may be worse than that described above. However, it seems that there can be little confidence that a person sanctioned by the BHA for a doping offence could even necessarily be prevented from working in the same industry but overseas. The cases of Dwyer<sup>143</sup> and Hughes<sup>144</sup> before the BHA Appeal Board indicate that the reciprocity envisaged by the promoters of the International Agreement on Breeding, Racing and Wagering<sup>145</sup> may be more apparent than real. In these cases, jockeys disciplined overseas successfully argued that they should not have those disciplinary measures enforced in the UK by the BHA notwithstanding the international agreement. A lack of consistency between the procedures of

<sup>140</sup> EADCMRs, effective 1 January 2015, Article 2.9.2.

<sup>141</sup> BHA Appeal Board award in the Appeals of Maurice Sines, James Crickmore, Peter Gold, Nick Gold and Kirsty Milczarek (10 April 2012) available at <http://www.britishhorseracing.com/resource-centre/disciplinary-results/disciplinaryappeal-hearings/disciplinary/?result=535a309cb33ebfaa5320ed66> (accessed 24 July 2017).

<sup>142</sup> This is similar to the quasi-criminal standard found in professional misconduct cases in various sectors and has been widely applied by courts and tribunals; see, for example, the CAS decision in *N., J., Y., W. v FINA*, CAS 98/208, 22 December 1998.

<sup>143</sup> *BHA v Dwyer* (9 October 2013) available at: BHA Disciplinary Appeal Hearings – <http://www.britishhorseracing.com/resource-centre/disciplinary-results/disciplinaryappeal-hearings/> (accessed 25 July 2017).

<sup>144</sup> *BHA v Hughes* (28 March 2012 and 20 April 2012) available at: BHA Disciplinary Appeal Hearings – <http://www.britishhorseracing.com/resource-centre/disciplinary-results/disciplinaryappeal-hearings/> (accessed 25 July 2017).

<sup>145</sup> Administered by the IFHRA, available at: <http://www.horseracingintfed.com/default.asp?section=IABRW&area=2> (accessed 25 July 2017).

the BHA as a disciplinary body and those utilised by the overseas racing authority *inter alia* was cited and persuaded the BHA to refuse to implement Article 10<sup>146</sup> of the Agreement.

To conclude, then, the *interface problem* is where horse racing and FEI sports like endurance have points of conflict that are real but not immediately obvious. Put another way, the horses and people *do* interact across the sports but the rules are so inconsistent and sport specific that it is impossible to ensure consistency. Therefore, the fragmented horse sport governance landscape is utterly ill-equipped to deal with the problems associated with cloning that are fast heading down the track towards them. There may be such points with a duality of conflict and intersection between any of the 80 or so<sup>147</sup> horse sports worldwide. These could be found where polo ponies and reining horses are owned by the same individual, say in the US or where jumps racing and eventing thoroughbreds are stabled together in, for instance, France as just two examples. These are real problems which cannot be solved while there are disciplinary rules and procedures applicable to each SGB that differ in such fundamental ways.

### It's not all bad

There are positives that can come out of the development of cloned horses so this article is not intended to be a harbinger of doom, but rather to sound a cautionary note. The potential dangers having been spelt out, there is a huge opportunity here which should not be missed by SGBs and ISFs. As identified in the introduction, there are many problems inherent in using regulations originally designed for humans for horses with minimal amendment. In particular, this includes a heavy reliance on strict liability and reverse burdens of proof even when applied to non-autonomous non-human athletes. This causes manifest injustice to the human competitor, trainer or owner and does nothing to ensure that real cheats are caught, given, *inter alia*, their pharmaceutical sophistication.<sup>148</sup> In fact, public faith in the integrity management of sport generally is suffering because current detection and enforcement systems are just not working.<sup>149</sup> Human cloning is coming at some point, which means cloned athletes. If SGBs are reactive to that event then, as Miah fears, they will most likely cobble together some amendment to the doping regulations already in force and hope that suffices. There is an opportunity here, though, to develop cloning-specific regulations relating to cloned horses well in advance, possibly decades before, the first human cloned athlete. This raises the possibility of horses being the 'test bed' for cloning regulation in sport, such that all the ethical debates regarding what is and what is not cheating and what, if any, genetic enhancement is allowed can have been thoroughly worked up. These documents, procedures and legal processes can then be carefully rewritten for humans when the time comes. This will mean a co-operative,

<sup>146</sup> On reciprocal arrangements on disciplinary awards between national racing jurisdictions, *Ibid*.

<sup>147</sup> The number may seem surprising, but see, for instance, Steinkraus, WC and Stoneridge, MA (n 5 above)..

<sup>148</sup> See generally, Merritt J (n 78 above) 198–216.

<sup>149</sup> See n 31 above.

consistent and above all, pro-active attitude in equine sports governance now. The concern is that the reality will be that SGBs and ISFs will shut the stable door when the (cloned) horse has bolted.

### Conclusion

This article cannot cover in detail the implications of cloning for the over 80 horse sports worldwide. Instead, issues have been explained having regard to the major players in the equine sport sector, in particular the Olympic sports, horse racing and polo. It is intended that this discourse will make the case for a wholesale review of the regulation of cloned sporting equines, not necessarily the exclusion of cloning. This debate will in turn have relevance for the rest of the equine-based sports across the globe.

Firstly, the rules of the BHA, the FEI, the FIP or any of the other many equine-based sports cannot be said to have done more than scratch the surface regarding the regulatory sporting issues that cloned animals might present. The debate has not been had, but clones could be banned and if not, there is a case, as Miah points out, for regulating them specifically rather than relying on the anti-doping regulations. These have proven flaws and are wholly unsuited to catering for cloning technology.

Secondly, if cloning is not addressed, then the consequences for betting could be catastrophic. The knock-on effect for horse racing is a grave concern given its heavy reliance on income from gambling, notwithstanding the current (official) ban on clones that may not stand. It would be complacent to argue that the negative outcomes discussed would be limited to horse racing either, as this article shows how interlinked many horse sports are beneath the surface. These intersections are not reflected in consistent and clear regulation across the horse sport world. Again, with respect to gambling and cloning, the *interface problem* stands in the way of a sensible co-ordinated approach, with non-racing SGBs likely to assert that racing's problem is not theirs.

Thirdly, it is likely that cloned animals will eventually be allowed protection as intellectual property. This is logical, as Torremans points out. This article argues that it might be logical but it remains concerning. The statutory and jurisprudential journey is tortuous but generally headed in that direction. The potential for the dominance of clones in a given equine sport is already the subject of commentary in the sporting press. Horse sport monopolised by a small number of families, individuals or yards is not good news for participants, spectators or gamblers.

Fourthly, the paradigm shift requiring a complete rethink of what constitutes 'fair play' and what is 'cheating' needs to happen now for equine-based sports.<sup>150</sup> It may be that the way the sporting rules on cloned animals are shaped informs those that may eventually be needed for cloned human

<sup>150</sup> See generally Miah, A (n 101 above) for a discussion on how such a rethink might be reshaped in relation to human athletes.

athletes. This is the complete reverse of the way that human doping regulations have been unsatisfactorily shoe-horned into place to make them suitable for application to horses.

For at least the four reasons in this conclusion, it is of paramount importance, therefore, that the response of the ISFs and SGBs for equine-based sports to cloned animals and the like is consistent. However, this article has illustrated that this will be highly problematic, with the current disjointed approach to the governance of all sports involving equines. Even if mere regulation and control, rather than banning, is opted for, horse sport globally does not have the consistent governance framework and integrity protection processes needed to deal with the prevention and detection problems that cloned animals might present. This is one key aspect of the *interface problem*. There is time to act, but given the speed at which technology and business are progressing in the area of cloning, possibly not as much time as we might have thought.